UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 31 2000

REPLY TO THE ATTENTION OF

MEMORANDUM

SUBJECT: ACTION MEMORANDUM - Determination of Threat to Public Health, Welfare, or the Environment at the Sauget Area 1 Dead Creek Superfund Site in Sauget and Cahokia, St. Clair County, Illinois (Site ID # 054V)

FROM: Kevin Turner, On-Scene Coordinator
Emergency Response Branch - Section 2

TO: William E. Muno, Director
Superfund Division

THRU: Richard C. Karl, Chief R. Karl
Emergency Response Branch

I. PURPOSE

The purpose of this memorandum is to document the determination of an imminent and substantial threat to public health and the environment due to contaminated sediments along Dead Creek and Site M. Dead Creek sediments and soils are the major potential source of contamination in Dead Creek flood waters. Contaminated creek sediments and soils must be removed as soon as possible to eliminate the imminent and substantial threat of exposure to the contamination via direct contact by nearby residents and via flooding from Dead Creek. Preliminary ecological assessment data also indicates significant damage to aquatic organisms in Dead Creek.

The actions proposed herein will mitigate the potential threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous wastes substances located in Dead Creek and Site M sediments and surface waters at the site. Proposed removal actions include but are not limited to preparing a Time Critical Removal Action Work Plan (also referred to herein as "Work Plan") and implement the Removal Action in accordance with the Work Plan to mitigate the threats posed by presence of contamination in Dead Creek sediments and certain adjacent soils and their potential migration via overflow and flood waters from the Site.

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Excavated sediments and water pumped from the creek will be, as necessary treated and disposed of in accordance with Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Toxic Substance Control Act (TSCA) requirements. These requirements may include excavation and off-site disposal or excavation and on-site containment. Any off-site disposal must be properly disposed of in accordance with EPA off-site disposal rule. Any on-site containment must comply with RCRA and/or TSCA-compliant containment cell. It is anticipated that these actions will be performed by the PRP pursuant to an Unilateral Administrative Order (UAO). This project will require an estimated 6 months of on-site work to complete.

The Sauget Area 1 Site is not on the National Priorities List (NPL), however, it has been proposed for inclusion on the NPL.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # ILD980792006

A. Physical Location and Description

Dead Creek stretches from the Alton & Southern Railroad at its northern end and flows south through Sauget and Cahokia for approximately 3.5 miles before emptying into the Old Prairie du Pont Creek, which flows approximately 2,000 feet west into a branch of the Mississippi River known as the Cahokia Chute. For sampling purposes, Dead Creek is subdivided into six separate segments labeled CS-A through CS-F. The segments are further described as follows:

CS-A is the northernmost segment of the creek and it is approximately 1,800 feet long and 100 feet wide running from the Alton & Southern Railroad to Queeny Avenue. This segment of the creek originally consisted of two holding ponds which were periodically dredged. For several years, CS-A and available downstream creek segments (e.g., ones that were not blocked off) received direct wastewater discharges from industrial sources and served as a surcharge basin for the Village of Sauget (formerly Village of Monsanto) municipal sewer collection system. When the system became backed up or overflowed, untreated wastes from industrial users of the sewer system were discharged directly into CS-A. On several occasions, CS-A was dredged and contaminated sediments were disposed of onto adjacent property (Site I of Sauget Area One Site). In 1968, the Queeny Avenue culvert, which allowed creek water to pass from CS-A to CS-B, was permanently blocked by the Village of Sauget. Remediation work was conducted by Cerro Copper in CS-A in 1990. Approximately 27,500 tons of contaminated sediments were excavated and sent to RCRA and TSCA permitted facilities. CS-A is now filled and covered with crushed gravel and is not subject of this Order. Land use surround CS-A is industrial.

CS-B extends for approximately 1,800 feet from Queeny Avenue south to Judith Lane. Sites G, L, and M of the Sauget Area One Site border this creek segment. Land use surrounding CS-B is primarily commercial with a small residential area near the southern end of this segment.

Agricultural land lies to the west of the creek and south of Site G. At some point after 1943, the Judith Lane culvert, which allowed creek water to pass from CS-B to CS-C, was blocked.

CS-C extends for approximately 1,300 feet from Judith Lane south to Cahokia Street. Land use is primarily residential along both sides of CS-C.

CS-D extends for approximately 1,100 feet from Cahokia Street to Jerome Lane. Land use is primarily residential along both sides of CS-D.

CS-E extends approximately 4,300 feet from Jerome Lane to the intersection of Illinois Route 3 and Route 157. Land use surrounding CS-E is predominantly commercial with some mixed residential use. Dead Creek temporarily passes through corrugated pipe at the southern end of CS-E.

CS-F is approximately 6,500 feet along and extends from Route 157 to the Old Prairie du Pont Creek. CS-F is the widest segment of Dead Creek and a large wetland area extends several hundred feet out from the both sides of the creek.

Site M: Located along the eastern side of Dead Creek CS-B (south of Site L) at the western end of Walnut Street in the Village of Cahokia. Site M was originally used as a sand borrow pit (dimensions = 220 feet by 320 feet) in the mid to late 1940's. The pit is hydraulically connected to Dead Creek through an eight-foot opening at the southwest portion of the pit. On information and belief, wastes from CS-B have in the past and potentially continue to migrate into Site M via this connection. The site is currently fenced

According to the Region 5 Superfund Environmental Justice Analysis, there are 4 Block Groups covering the distance of Dead Creek. Three of the Block Groups do not meet the demographic conditions for an environmental justice (EJ) priority. However, residents in census tract 502601, Block Group 2 do meet Region 5 EJ criteria. This block group has a total population of 1829. Of the 1829, 82% are classified as white and 18% are classified as minority. Approximately 60% of the families residing in this block group have an income of less than 2 times the established state low-income level. .

B. Site Background

Dead Creek has historically been a repository for local area wastes. On December 21, 1928, an easement agreement between local property owners and representatives of local business, municipal and property interests was executed to "improve the drainage in that District (Dead Creek) by improving Dead Creek so as to make it suitable for the disposal of wastewater, industrial waste, seepage and storm water." Thereafter, Dead Creek systematically received direct and indirect discharges from local businesses and the municipality for many years.

Sediment and surface water samples collected by U.S. EPA and Illinois EPA have detected a wide variety of organic and inorganic contaminants in each of the remaining creek segments.

CS-B: Elevated levels of volatile organic compounds ("VOCs") and semi-volatile organic compounds ("SVOCs") were detected in sediments samples collected from CS-B such as benzene (87 parts per billion ("ppb")), toluene (810 ppb), chlorobenzene (5,200 ppb), ethylbenzene (3,600 ppb), trichlorobenzene (3,700 parts per million ("ppm")), dichlorobenzene (12,000 ppm), chloronitrobenzene (240 ppm), xylenes (540 ppm), 1,4-dichlorobenzene (220,000 ppb), 1,2-dichlorobenzene (17,000 ppb), phenanthrene (15,000 ppb), fluoranthene (11,000 ppb), pyrene (13,000 ppb). Elevated levels of PCBs exist within CS-B at levels as high as 10,000 ppm. Elevated levels of metals were also detected in sediments in CS-B including arsenic (6,000 ppm), cadmium (400 ppm), copper (44,800 ppm), lead (24,000 ppm), mercury (30 ppm), nickel (3,500 ppm), silver (100 ppm), and zinc (71,000 ppm).

Surface water samples collected from CS-B revealed elevated concentrations of VOCs such as chloroform (27 ppm), 1,1-dichloroethene (3 ppb), toluene (20 ppb), and chlorobenzene (33 ppb). SVOCs detected in surface water included phenol (28 ppb), 2-chlorophenol (14 ppb), 1,4-dichlorobenzene, 2-methylphenol (4 ppb), 4-methylphenol (35 ppb), 2,4-dichlorophenol (150 ppb), naphthalene (8 ppb), 3-nitroaniline (9 ppb), and pentachlorophenol (120 ppb). Pesticides were also detected in surface water samples including dieldrin (.18 ppb), 4,4-DDT (.24 ppb), 2,4-D (47 ppb) and silvex (3.4 ppb). An elevated level of PCBs (aroclor 1260) was also detected in the surface water of CS-B at a level of 44 ppb. Elevated levels of metals were detected in surface water such as aluminum (9,080 ppb), barium (7,130 ppb), arsenic (31 ppb), cadmium (25 ppb), chromium (99 ppb), copper (17,900 ppb), lead (1,300 ppb), mercury (8.6 ppb), nickel (1,500 ppb), and zinc (10,300 ppb).

CS-C: Elevated levels of VOCs and SVOCs were detected in sediments in this segment of Dead Creek including fluoranthene (4,600 ppb), pyrene (4,500 ppb), benzo(a)anthracene (3,300 ppb), chrysene (4,400 ppb), benzo(b)fluoranthene (7,500 ppb), benzo(a)pyrene (4,500 ppb), indeno(1,2,3-cd pyrene (4,300 ppb), benzo(g,h,l) perylene (1,500 ppb), dibenzo(a,h)anthracene (4,000 ppb), and 4-methyl-2-pentanone (1,200 ppb). PCBs (total) were also detected in sediments from CS-C at a maximum concentration of 27,500 ppb. Sediment samples also revealed elevated levels of metals such as copper (17,200 ppm), lead (1,300 ppm), nickel (2,300 ppm), zinc (21,000 ppm) and mercury (2.81 ppm)

Surface water samples collected from creek segment CS-C revealed elevated levels of metals such as lead (710 ppb), mercury (1.9 ppb), and nickel (83 ppb).

CS-D: Elevated concentrations of VOCs and SVOCs were detected in sediment samples collected from CS-D including 4-methyl-2-pentanone (1,200 ppb), benzo(b)fluoranthene (500 ppb), indeno(1,2,3-cd)pyrene (310 ppb), and dibenzo(a,h)anthracene (360 ppb). PCBs (total) were detected in sediments at a maximum concentration of 2,000 ppb. Elevated concentrations of

metals were also detected such as cadmium (42 ppm), copper (1,630 ppm), lead (480 ppm), mercury (1 ppm), and zinc (6,590 ppm).

Surface water samples collected from CS-D revealed elevated concentrations of metals such as cadmium (8.1 ppb), lead (89 ppb), and nickel (189 ppb).

CS-E: Elevated concentrations of VOCs and SVOCs were detected in sediment samples collected from CS-E including chlorobenzene (120 ppb), pyrene (5,300 ppb), benzo(b)fluoranthene (2,400 ppb), and chrysene (2,800 ppb). Elevated levels of PCBs (total) were also detected at a maximum concentration of 59,926 ppb. Elevated levels of metals were also detected in the sediments of CS-E including cadmium (23.1 ppm), copper (8,540 ppm), lead (1,270 ppm), mercury (1.53 ppm), nickel (2,130 ppm), and zinc (9,970 ppm).

CS-F: Elevated concentrations of VOCs and SVOCs were detected in the sediments of CS-F such as toluene (29 ppb), 4-methylphenol (1,100 ppb), fluoranthene (310 ppb), and pyrene (340 ppb). Pesticides were also detected in the sediments such as 4,4-DDE (97 ppb), endrin (66 ppb), endosulfan II (203 ppb), and methoxychlor (8 ppb). PCBs (total) were also detected in sediments at a maximum concentration of 5,348 ppb. Elevated levels of metals were also detected in the sediments such as arsenic (276 ppm), lead (199 ppm), mercury (.55 ppm), cadmium (23.5 ppm), copper (520 ppm) nickel (772 ppm) and zinc (4,520 ppm). Elevated concentrations of dioxins were also detected in sediments in CS-F at a maximum concentration of 211 picograms per gram.

Site M: Originally constructed as a sand borrow pit in the mid to late 1940's, this pit is approximately 59,200 square feet in size and previous investigations indicate that approximately 3,600 cubic yards of contaminated sediments are contained within the pit. It is estimated that the pit is approximately 14 feet deep and it is probable that there is a hydraulic connection between this pit water and the underlying groundwater. Surface water samples collected from Site M revealed elevated levels of VOCs such as chloroform (27 ppb), toluene (19 ppb) and chlorobenzene (33 ppb). SVOCs detected in surface water included phenol (28 ppb), 2-chlorophenol (14 ppb), 2,4-dimethyl phenol (13 ppb), 2,4-dichlorophenol (150 ppb), and pentachlorophenol (120 ppb). Pesticides detected in surface water include dieldrin (0.18 ppb), endosulfan II (.06 ppb), 4,4-DDT (0.24 ppb), 2,4-D (47 ppb) and 2,4,5-TP (Silvex) (3.4 ppb). PCBs were also detected in surface water at a maximum level of 0.0044 ppb.

Sediment samples collected from Site M revealed elevated levels of VOCs such as 2-butanone (14,000 ppb), chlorobenzene (10 ppb) and ethyl benzene (0.82 ppb). SVOCs detected in sediments included 1,4-dichlorobenzene (40 ppm), 1,2-dichlorobenzene (26 ppm), 1,2,4-trichlorobenzene (14 ppm), pyrene (27 ppm), fluoranthene (21 ppm), chrysene (12 ppm), and benzo(b)fluoranthene (15 ppm). Total PCB levels were detected as high as 1,100 ppm. Elevated levels of metals were also detected in sediments at Site M, including antimony (41.2 ppm), barium (9,060 ppm), cadmium (47.2 ppm), copper (21,000 ppm), nickel (2,490 ppm), silver (26 ppm), zinc (31,600 ppm), lead (1,910 ppm), arsenic (94 ppm) and cyanide (1.3 ppm).

The table below compares concentrations of a few compounds present in Dead Creek with the U.S. EPA's Ecotox Thresholds Criteria as depicted in OSWER Directive 9345.0-12FSI Dated January 1996.

Compound	Max Concentration	Media	Segment	Ecotox Threshold
Chlorobenzene	5.2 ppm	Sediment	B	0.82 ppm
1,4 dichlorobenzene	220. ppm	Sediment	B	0.35 ppm
1,2 dichlorobenzene	17. ppm	Sediment	B	0.34 ppm
pyrene	13 ppm	Sediment	B	0.66 ppm
PCBs	10,000 ppm	Sediment	B	0.023 ppm
4,4-DDT	0.24 ppb	SW	B	0.013 ppb
Benzo (a) pyrene	4.5 ppm	Sediment	C	0.43ppm
Arsenic	6,000 ppm	Sediment	B	8.2ppm
Lead	24,000 ppm	Sediment	B	47.ppm

III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The conditions at Sauget Area 1, Dead Creek and Site M present an imminent and substantial threat to the public health, or welfare, and the environment and meet the criteria for a removal action provided for in the National Contingency Plan (NCP), Section 300.415, Paragraph (b)(2). 40 C.F.R. § 300.415(b)(2)(I), (iii), (iv), and (v), respectively, specifically allows removal actions for:

A) Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations or the food chain.

This condition exists at the Site due to the high levels of organic and inorganic contaminants found in the sediments and surface water of Dead Creek and Site M which is located in close proximity to local populations and could potentially be released into residential areas via flood waters caused by the shallow water table in the area and the presence of blocked or inadequately sized culverts. Some of the contaminants in Dead Creek are known carcinogens or suspect carcinogens. Contaminants present in Dead Creek and potentially migrating from Dead Creek via overflow and flood waters to nearby residential areas are accessible to humans, specifically the residents and children who live and play on these potentially affected properties. These

individuals could potentially be exposed to the contamination by direct skin contact with the sediments, soils and surface water in or released from Dead Creek.

B) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

This factor is present at the Site due to the fact high levels of organic and inorganic contaminants are located within the sediments and surface water of Dead Creek and Site M. Blocked and/or inadequately sized culverts on Dead Creek often cause flood waters to back up behind these culverts and then overflow into nearby residential areas. This area of St. Clair County is particularly prone to flooding due to a very shallow groundwater table. Storm water backing up behind culverts exasperates the flooding conditions in this area.

C) Availability of other appropriate federal or state response mechanisms to respond to the release.

The Illinois EPA currently does not have the available funds to respond to this time-critical situation. In addition, the U.S. EPA is the lead agency for enforcement actions related to the Sauget sites.

IV. ENDANGERMENT DETERMINATION

Given the site conditions, the nature of the suspected hazardous substances on site, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS

The OSC proposes that the following actions be taken to mitigate threats posed by the presence of hazardous substances at the Sauget Area 1 Site 1 (Dead Creek):

1) Prepare a Time Critical Removal Action Plan and implement the Removal Action to assess and mitigate the threats posed by the migration of contaminants via overflow and flood waters from the Site, as described in sections II and III above. This Time Critical Removal Action Work Plan ("Work Plan") shall describe the plan for 1) the removal of materials from CS-B (creek sediments, creek bed soils and flood plain soils); CS-C, D, and E (non-native creek sediments only); and Site M (pond sediments and pond bottom soils) in Sauget Area One, while minimizing adverse impacts to area wetlands and habitat; 2) the proper handling, dewatering, off-site disposal or on-site containment of such materials; 3) a plan for management of Dead Creek storm water; 4) the sampling and analysis of areas where materials has been removed, for the purpose of defining remaining contamination; 5) the placement of membrane liner material over CS-B and in all other

excavated areas where, based on post removal sample results, such liner is determined to be necessary; and 6) a Health and Safety Plan.

The estimated volume of sediment and/or soil in CS-B and Site M is 25,500 cubic yards and CS-C, D and E contain an estimated volume of 24,400 cubic yards of sediment, a total of 49,900 cubic yards impacted sediment and soil. The above volumetric estimate for CS-B includes removal of one foot of creek bed soils and flood plain soils in addition to the sediments in CS-B. The estimate for Site M includes one foot of pond bottom soils in addition to the sediments. Only sediments are to be removed from CS-C, D, and E.

The proposed actions in this Action Memorandum are consistent with and supplements an Action Memorandum dated June 9, 1999 and a Unilateral Administrative Order issued on June 21, 1999, to Monsanto and Solutia requiring investigation and repair of Dead Creek culverts in the Cahokia and Sauget areas.

If the project involves the off-site disposal of contaminated sediments and/or creek water, these media must be properly disposed of at a RCRA and TSCA approved disposal facility in accordance with EPA off-site disposal rule found at 40 C.F.R. § 300.440, 58 Federal Register 49215 (September 22, 1993). In addition, if the project involves the construction of an on-site containment cell for disposal purposes, the containment cell must meet both Illinois EPA and U.S. EPA TSCA and RCRA design criteria to the maximum extent practicable.

Applicable or Relevant and Appropriate Requirements (ARAR)

If the remedy involves the construction of an on-site containment cell, Illinois EPA has identified the following ARARs, as set out in 35 Illinois Administrative Code (IAC), to be complied with; 35 IAC 724.401, 35 IAC 724.414, 35 IAC 724.119, 35 IAC 724, Subpart F, 35 IAC 724.410, and 35 IAC 724 Subpart G. Any other State or Federal ARAR will also be complied with to the maximum extent practicable. EPA has determined that creek segments B, C, D, E and Site M along with the proposed TSCA cell are within the same Area of Concern (AOC) and therefore the consolidation of waste material within the cell, as described in this Order, does not invoke any of the Land Disposal Restrictions (LDRs) under RCRA.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Continued risk to public health and the environment will result if no action or delayed action ensues.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this site.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this site is contained in the Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for Dead Creek and Site M in Sauget Area 1 developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the site. Conditions at the site meet the NCP Section 300.415(b)(2) criteria for a removal and I recommend your approval of the proposed removal action. You may indicate your decision by signing below.

APPROVE: _____ DATE: May 31, 2000
for William E. Muno, Director
Superfund Division

DISAPPROVE: _____ DATE: _____
William E. Muno, Director
Superfund Division

Attachment 1 - Region 5 Superfund EJ Analysis

cc: K. Mould, U.S. EPA, 5202-G
M. Chezik, U.S. Department of the Interior, **w/o Enf. Addendum**
T. Skinner, Illinois EPA, **w/o Enf. Addendum**
C. Morin, Illinois EPA, **w/o Enf. Addendum**
J. Morgan, Illinois Dept. of Attorney General, **w/o Enf. Addendum**
S. Davis, Illinois DNR **w/o Enf. Addendum**

SAUGET AREA 1 DEAD CREEK SUPERFUND SITE
CAHOKIA, ST. CLAIR COUNTY, ILLINOIS
AR ORIGINAL

DOCUMENT # 12

"Action Memorandum: Determination of Threat to Public Health, Welfare, or the Environment at the Sauget Area 1 Dead Creek Superfund Site"

BCC PAGE
1-Page

REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

SAUGET AREA 1 DEAD CREEK SUPERFUND SITE
CAHOKIA, ST. CLAIR COUNTY, ILLINOIS
AR ORIGINAL

DOCUMENT # 12

"Action Memorandum: Determination of Threat to Public Health, Welfare, or the Environment at the Sauget Area 1 Dead Creek Superfund Site"

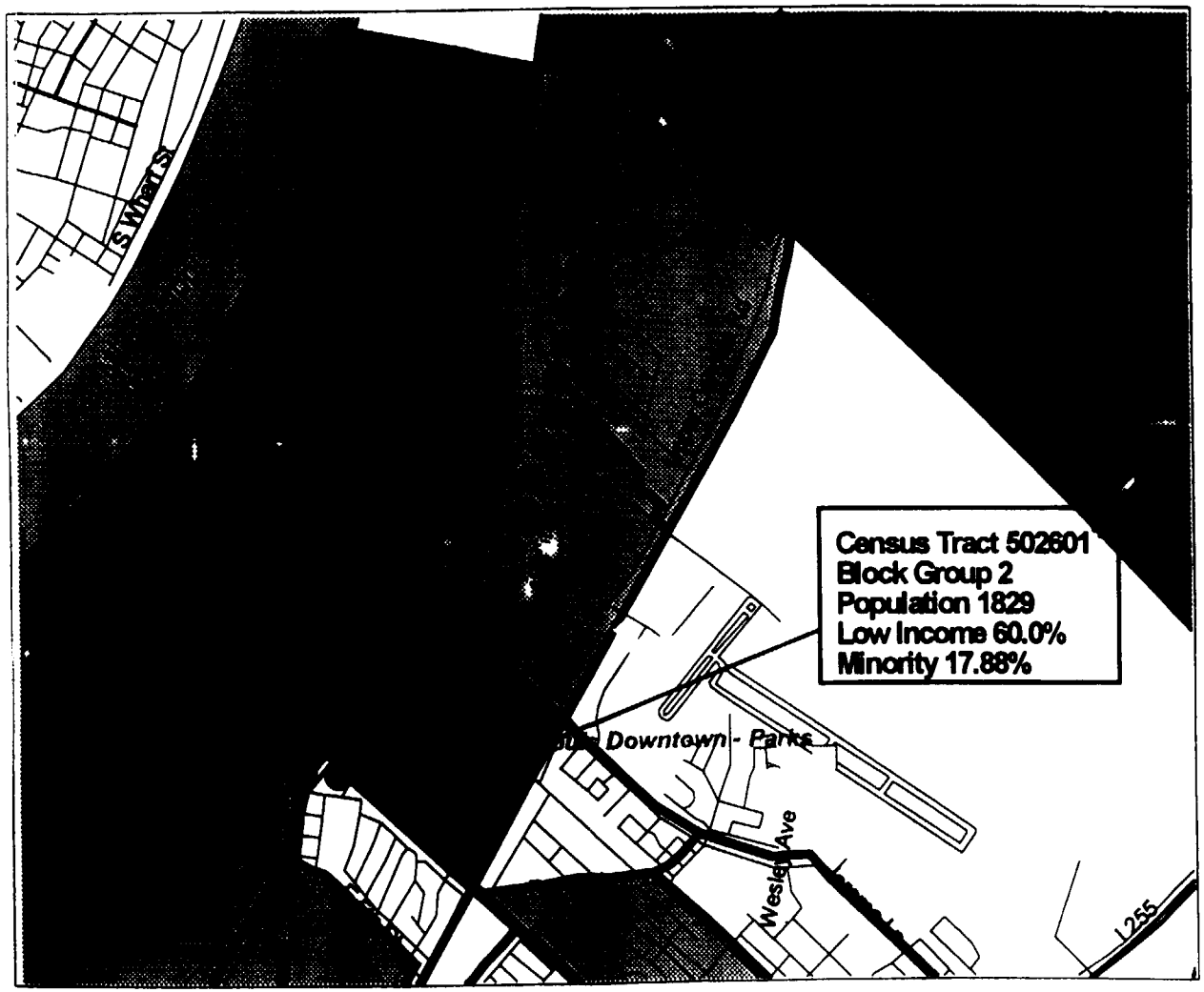
ENFORCEMENT ADDENDUM (May 1999)
1-Page

REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

Region 5 Superfund EJ Analysis

Sauget Area 1, Dead Creek Site, Cahokia, IL



0 0.2 0.4 0.6 0.8 1 Miles

EJ Identification

- Low Income and Minority Less than State Average
- Low Income or Minority at or Greater than State Average
- Low Income or Minority 2 Times or Greater than State Average [meets Region 5 EJ Case criteria]
- Site Location
- Block Group Boundary

Region 5 EJ Case Criteria for Illinois
Minority: 50% or greater
Low Income: 54% or greater

N

Date of Map 5/26/99

Source of Map 1990 Census Database

ATTACHMENT 2

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
SAUGET AREA 1
DEAD CREEK SEDIMENT REMOVAL SITE
CAHOKIA AND SAUGET, ILLINOIS

ORIGINAL
MAY 25, 2000

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	00/00/00	Illinois EPA	U.S. EPA	Area 1 Screening Site Inspection Report	306
2	00/00/87	Weston-SPER	U.S. EPA	Removal Action Plan for the Dead Creek Sites	18
3	00/00/88	Ecology and Environment, Inc.	U.S. EPA	Expanded Site Investigation Report for the Dead Creek Project Sites	1019
4	00/00/92	Geraghty & Miller,	U.S. EPA	Site Investigations Report for Dead Creek Segment B and Sites L and M	498
5	08/24/94	USDHHS/USPHS/ Agency for Toxic Substances and Disease Registry	U.S. EPA	ATSDR Health Report	22
6	00/00/98	Ecology and Environment, Inc.	U.S. EPA	Data Tables/Maps for the Sauget Area 1 and 2 Sites	759
7	00/00/99	URS Greiner/ Woodward Cycle	U.S. EPA	Hydrologic and Hydraulic Analysis of Dead Creek	212
8	06/09/99	Turner, K., U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Determination of Threat to Public Health, Welfare, or the Environment at the Sauget Area 1 Dead Creek Superfund Site [Culvert Replacement] (PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED)	11
9	11/08/99		U.S. EPA	Alternatives Analysis for Dead Creek Sediment Removal	27
10	01/05/00		U.S. EPA	Supplement to the Alternatives Analysis for Dead Creek Sediment Removal	23

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
11	02/24/00		U.S. EPA	Letter re: Substantial Compliance with Toxic Substances Control Act	1
12	00/00/00	Turner, K., U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Determination of Threat to Public Health, Welfare, or the Environment at the Sauget Area 1 Dead Creek Superfund Site **(PENDING)**	